

WHAT IS CLAIMED IS:

1. A writing method for writing data to an optical disk by a ZCLV method, said writing method comprising the steps of:

completing writing to a first zone where the writing is performed at first linear velocity;

evaluating writing quality of a write signal of the first zone; and

performing writing at second linear velocity to a second zone next to the first zone with the laser power calculated from the result of the evaluation.

2. A writing method according to claim 1, wherein:

the number of revolutions of the optical disk is changed so that the linear velocity reaches the second linear velocity while evaluating the quality of a write signal of the first zone.

3. A write power control method used for an optical disk drive for writing data by a ZCLV (Zoned Constant Linear Velocity) method that makes linear velocity higher as a head gets nearer to an outer circumferential zone, said write power control method comprising the steps of:

at the time of zone switching, interrupting writing performed by the head facing an optical disk;

moving the head to seek to a given return point in a

written area;

at the return point, moving the head toward a next zone, and also accelerating a motor for rotating the optical disk so that the linear velocity of the motor becomes linear velocity for the next zone;

during the acceleration, reading a written area to measure writing quality of the written area;

from the measured writing quality, setting write power for the next zone; and

at a point of time when the motor reaches the linear velocity for the next zone and the head reaches the next zone, restarting the writing to the optical disk.

4. A write power control method according to claim 3, wherein:

when the measurement of the writing quality is completed, a point at which it is possible to secure the acceleration time required to reach the linear velocity of the next zone is selected as the return point.

5. A write power control method used for an optical disk drive for writing data by a ZCLV (Zoned Constant Linear Velocity) method that makes the linear velocity higher as a head gets nearer to an outer circumferential zone, said write power control method comprising the steps of:

interrupting writing performed by the head facing an optical disk at the time of zone switching;

moving the head to seek to a given return point in a written area;

moving the head toward a next zone at the return point, and reading the written area to measure writing quality of the written area;

setting write power for the next zone from the measured writing quality;

accelerating a motor for rotating the optical disk so that the linear velocity of the motor becomes the linear velocity for the next zone; and

restarting the writing to the optical disk at a point of time when the motor reaches the linear velocity of the next zone and the head reaches the next zone.

6. A write power control method used for an optical disk drive for writing data by a ZCLV (Zoned Constant Linear Velocity) method that makes linear velocity higher as a head gets nearer to an outer circumferential zone, said write power control method comprising the steps of:

interrupting writing performed by the head facing an optical disk at the time of zone switching;

accelerating a motor for rotating the optical disk so that the linear velocity of the motor is changed to the linear velocity for the next zone;

moving the head to seek to a given return point in a written area when the linear velocity of the motor reaches

the linear velocity for the next zone;

at the return point, moving the head toward a next zone, and reading the written area to measure the writing quality;

setting write power for the next zone from the measured writing quality; and

restarting the writing to the optical disk at a point of time when the head reaches the next zone.

7. A write power control method used for an optical disk drive for writing data by ZCLV (Zoned Constant Linear Velocity) that makes the linear velocity higher as a head gets nearer to an outer circumferential zone, said write power control method comprising the steps of:

interrupting writing performed by the head facing an optical disk at the time of zone switching;

moving the head to seek to a given return point in a written area;

at the return point, moving the head toward a next one at the return point, and reading the written area to measure writing quality of the written area; and

when setting write power for a next zone by use of the measured writing quality, determining the write power for the next zone by adding an error correction value to write power in a current zone to correct the write power in the current zone to target write power, and then by

multiplying the write power by a power increase coefficient at the time of zone switching, so that the write power in the current zone becomes the target write power for the target writing quality.

8. A write power control method according to claim 7, wherein:

said error correction value is determined from a linear approximation in early OPC (Optimum Power Control).

9. A write power control method according to Claim 7, wherein:

said error correction value is determined by use of a table in which writing quality/write power are stored beforehand on an optical disk basis.